Smart-UPS® RC

External Battery Pack
Tower/Rack-Mount 4U

SRC96XLBP

SRC96XLBP2S

English

Introduction

Overview

The American Power Conversion (APC®) SRC96XLBP external battery pack (XLBP) connects to an APC Smart-UPS® RC. Together these units provide extended protection for electronic equipment (load) from utility power blackouts, brownouts, sags and surges. The UPS and the XLBP together provide continuous power from the batteries until utility power returns to safe levels or the batteries are fully discharged.

Inventory

Read the Safety Guide before installing the unit.

Inspect the battery pack upon receipt. Notify the carrier and dealer if there is damage.

The packaging is recyclable; save it for reuse or dispose of it properly.

Check the battery pack package contents:

- External Battery Pack (XLBP)
- Front bezel
- Stabilizer/rack-mount brackets
- XLBP connector cable
- Hardware supplied listed in table below

- Literature kit containing:
    - Product documentation
    - Smart-UPS® RC User Manuals CD
    - Safety information
    - Warranty information

NOTE: The model and serial numbers are located on a small, rear panel label. For some models, an additional label is located on the chassis under the front bezel.

Hardware supplied

8		Rack-mount configuration: Pan head screws for securing rack-mount brackets to unit
8		Rack-mount configuration: Washers for securing rack-mount brackets to unit
2		Tower configuration: Flat head screws for securing stabilizer brackets unit
2		Rack-mount configuration brackets Tower configuration stabilizer brackets
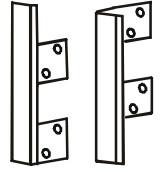
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Accessories

Install accessories prior to connecting power to the UPS.

Refer to the APC Web site, **www.apc.com** for available accessories.

Optional accessories

- Additional external battery packs (XLBP)
- Additional battery strings
- 4-post rail kit

Specifications

Environmental Specifications

Temperature	Operating	0° to 40° C (32° to 104° F)	This unit is intended for indoor use only. Select a location sturdy enough to handle the weight.
	Storage	-15° to 30° C (5° to 86° F) charge UPS battery every six months 30° to 70° C (86° to 158° F) charge UPS battery every three months	Do not operate unit where there is excessive dust or temperature or humidity are outside specified limits.
Maximum Elevation	Operating	3,000 m (10,000 ft)	Environmental factors impact battery life. High temperatures, poor utility power, and frequent, short duration discharges will shorten battery life.
	Storage	15,000 m (50,000 ft)	
Humidity		0 to 95% relative humidity, non-condensing	

Physical Specifications

Weight - Refer to Safety Guide supplied with this unit for lifting guidelines.		
XLBP model	SRC96XLBP2S • without batteries • with two 48 V battery modules	15 kg (32 lbs) 35 kg (76 lbs)
	SRC96XLBP • without batteries • with six 48 V battery modules	15 kg (32 lbs) 75 kg (164 lbs)
	each 48 V battery module	10 kg (22 lbs)
Each 96 V battery string consists of two 48 V battery modules.		
Maximum number of external battery packs (XLBPs) supported by Smart-UPS RC	10 **Combined weights of UPS and all XLBPs installed in a rack must not exceed rack weight limits.**	
Dimensions **Length x Width x Height:** 48 cm (19 in) **x** 43 cm (17 in) **x** 18 cm (7 in)		
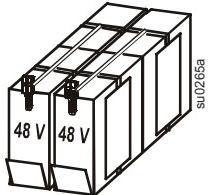
Installation

⚠️ **Units may vary in appearance from those depicted in this manual.**

Always place UPS above XLBPs in rack-mount configuration.

Connect all battery strings. Failure to do so may cause equipment damage.

Refer to *Physical Specification*s in this manual and the Safety Guide before installing unit.

Unit is heavy. Batteries must be removed from unit prior to installation.

1. Remove screws securing battery compartment door. Remove door.

2. Grasp plastic flap attached to battery and pull to remove battery module.
   Units in tower configuration, remove batteries at top of unit first.
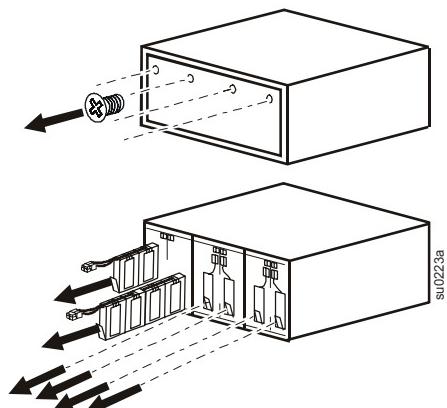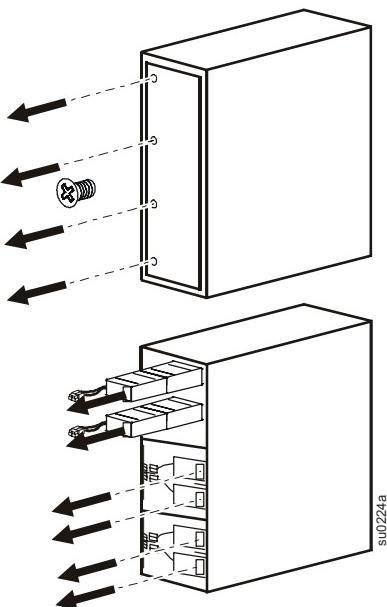

Tower configuration

Install stabilizer brackets

1. Stabilizer brackets must be installed on tower units.
2. Each bracket must be secured with two flat head screws (supplied).

   NOTE: Screws are pre-installed on left side of unit. These screws must be removed from unit and used to secure stabilizer bracket. Screws for securing stabilizer bracket to right side of unit are included in hardware bag supplied with unit.
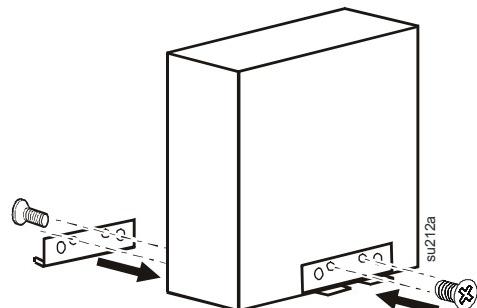
Install and connect batteries

This unit is equipped with battery modules.

Install batteries into unit beginning with batteries at the bottom.

Each string must be connected to battery connectors on chassis.

1. Install batteries.
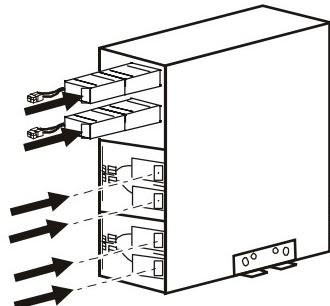
2. Connect batteries.
3. Replace battery compartment door and secure door with screws previously removed.
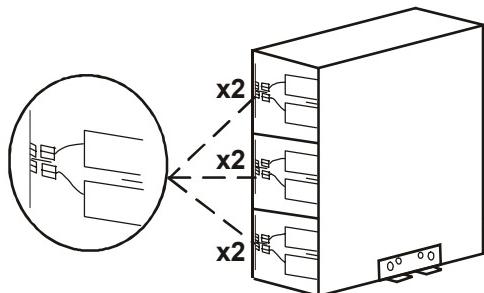
Install bezel

1. Fit three tabs on the bottom inside edge of bezel into slots in chassis.
2. Tip bezel forward. Fit two tabs on top inside edge of bezel into slots in chassis and snap bezel into position.
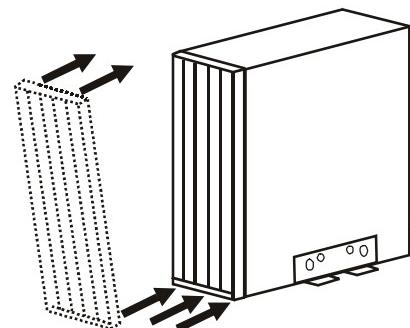
2-post rack-mount configuration

This unit is intended for installation in a 19", two-post or four-post rack.

For details on 4-post rail and rack installation refer to instructions in rail kit.

Remove stabilizer brackets if they are installed. Remove four screws that secure each bracket.

Position unit for mounting in rack

The unit is heavy. Use caution when positioning unit.

NOTE: The holes for securing rack-mount brackets are plugged. Remove the appropriate plugs prior to installing brackets on the unit.
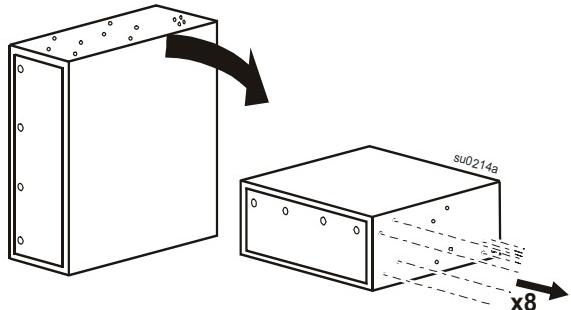
Install rack-mount brackets

Four pan head screws and four washers must be used to secure each rack-mount bracket to unit.
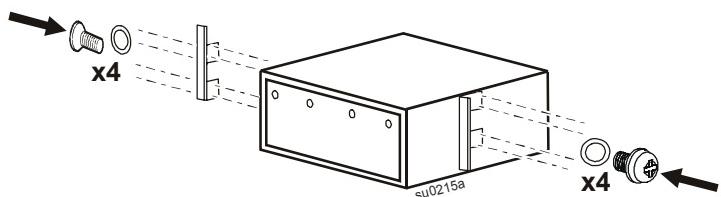
Secure 2-post rack to floor
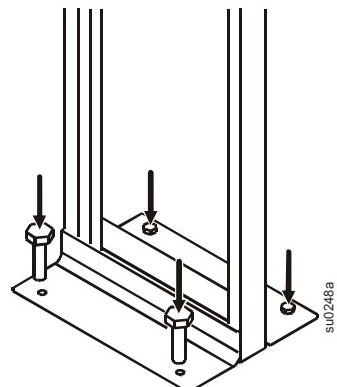
Install units in rack

The UPS and XLBPs should be installed at or near bottom of rack. Always place the UPS above XLBPs. Batteries must be removed from units prior to installation in a rack.

Two screws (not supplied), must be used to secure each rack-mount bracket to rack.
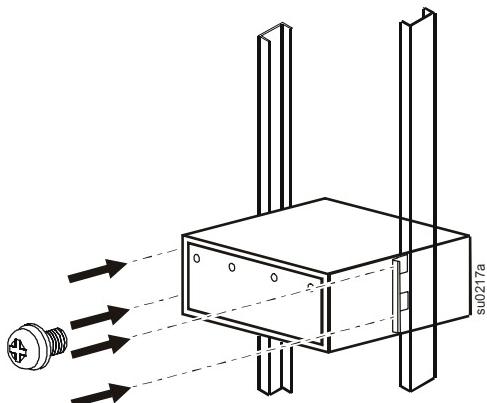
Install and connect batteries

This UPS is equipped with battery modules. Each module must be connected to battery connectors on chassis.

1. Install batteries.
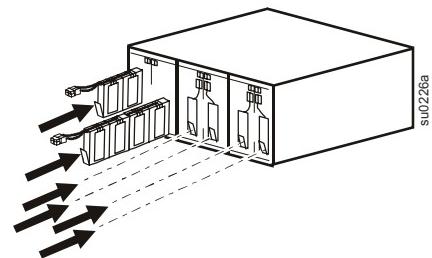
2. Connect internal batteries.
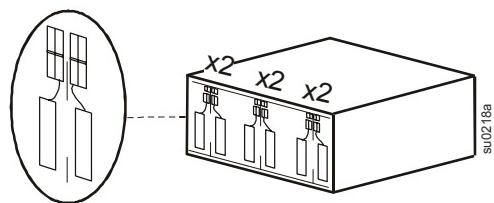
3. Replace battery compartment door and secure door with screws previously removed.

Install bezel

1. Fit three tabs on inside edge of bezel into slots in chassis.
2. Tip bezel toward chassis. Fit two tabs on inside edge of bezel into slots in chassis and snap bezel into position.
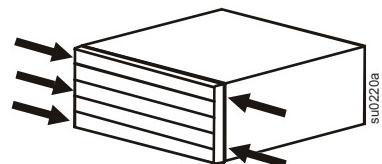
Connect XLBPs to UPS

Tower configuration

UPS   XLBP   XLBP   XLBP

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Rack-mount configuration

UPS

XLBP

XLBP

XLBP

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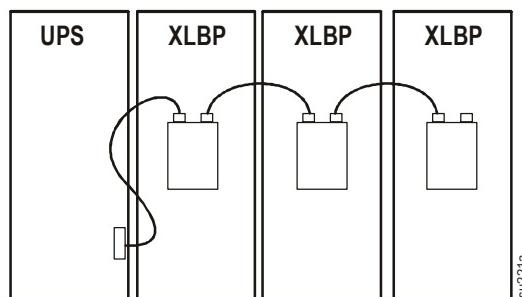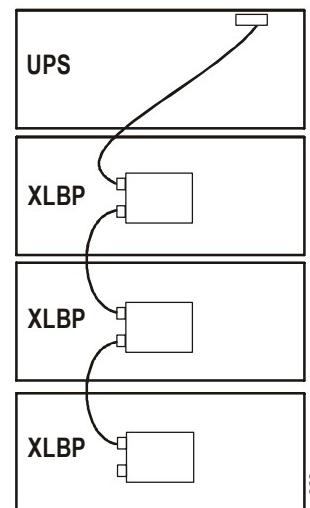
There is small cover over each external battery pack connector on the UPS and XLBP. Remove the screw that secures the cover and remove the cover

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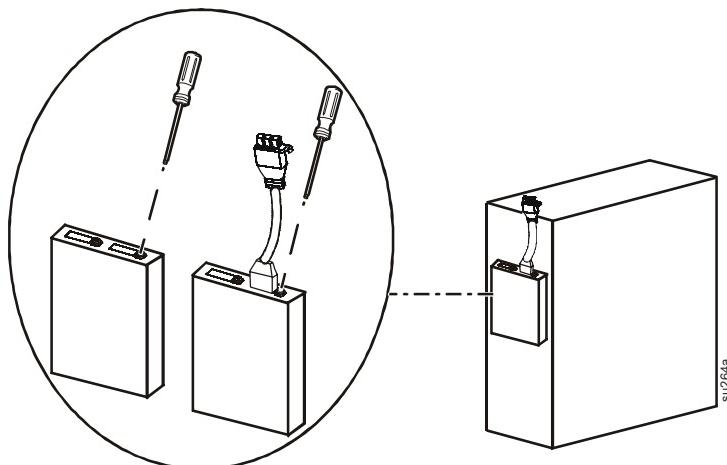
Configure UPS parameters

This configuration affects the accuracy of the predicted runtime calculations the UPS performs while running on battery power.

Refer to the *Battery String Configuration* tables at the end of this section for detailed instructions.

Smart-UPS RC models must be programed to recognize the number of battery strings connected to the UPS. There are four options available for configuring the UPS to recognize the number of battery strings

1. PowerChute® *Business Edition*: Refer to the instructions included with the software

2. Network Management Card (NMC) Web interface: Refer to the instructions included with NMC

3. Network Management Card (NMC) terminal mode: Refer to the instructions below

4. UPS terminal mode

Configure UPS connection settings using NMC terminal mode

Connect the serial cable to the serial com port on rear side of UPS.

1. Open a terminal program, such as HyperTerminal®.
   From the Desktop, go to: **Start, Programs, Accessories, Communication, HyperTerminal**

2. Follow the prompts to choose a name and select an icon. If the message, "...must install a modem," click **Cancel**.

3. Go to **File, Properties.** Select the COM port that is connected to your UPS. The port settings are:
   – **bits per second - 2400**
   – **data - bits 8**
   – **parity - none**
   – **stop bit - 1**
   – **flow control - none**

4. Click **OK** in each of two windows

5. Press **ENTER** to initiate connection to UPS.

Configure the number of battery strings using NMC terminal mode

1. Once the blank terminal window is open:

2. Press **ENTER** to initiate terminal mode. Press **ENTER** multiple times, until the prompt **User Name:** is displayed. Follow the prompts. Type slowly, waiting until each character appears on the screen prior to typing the next character.
   Network Management Card defaults:

   • User Name: **apc**

   • Password: **apc**

3. Press **1** and **ENTER** to select Device Manager.
   Select the model by entering the corresponding number, then press **ENTER.**

4. Press **3** and **ENTER** to select **Configuration.**

5. Press **1** and **ENTER** to select **Battery.**

6. Press **2** and **ENTER** to change **Battery Settings.**

7. Type in the number of battery strings then press **ENTER.**

8. Press **3** and **ENTER** to accept the changes.

9. Press **ESC** five times to return to the main menu.

10. Press 4 and **ENTER** to log out.

Configure UPS connection settings using UPS terminal mode

Connect the serial cable to the serial port on the back of the UPS. If using USB communication to the UPS, disconnect USB cable prior to connecting serial cable.

1. Open a terminal program, such as HyperTerminal
   From the Desktop, go to: **Start, Programs, Accessories, Communication, HyperTerminal**

2. Follow the prompts to choose a name and select an icon. Disregard the message, "...must install a modem," if it is displayed. Click **Cancel**

3. Go to **File, Properties.** Select the COM port that is connected to your UPS. The port settings are:
   – **bits per second - 2400**
   – **data - bits 8**
   – **parity - none**
   – **stop bit - 1**
   – **flow control - none**

4. Click **OK** in each of two windows

5. Press **ENTER**

Configure the number of battery strings using UPS terminal mode

1. Once the blank terminal window is open, follow these steps to enter the number of battery strings:
NOTE: Letter key commands are case sensitive. Use capital letters when using letter key commands.

2. Press **Y**. The UPS will respond with **SM** in the command box. If the UPS does not respond to the **Y** command, ensure the serial cable is securely connected to the serial port on the UPS. Use only an APC supplied serial cable.

3. When **SM** appears in the command box press the **>** key. The UPS will respond with the number of battery strings connected to the UPS. If the UPS has not been previously programmed to recognize the number of battery strings this number will be zero.

4. Use the **+** or **-** keys to change the number of battery strings. **OK** will appear in the command box.

5. Press **>** key. The number of battery strings will appear in the command box.
   NOTE: The **+** or **-** keys and the **>** key must be used again to change the number of battery strings from this point in the programming.

6. Press **R**. The UPS will respond with **BYE** in the command box.

Smart-UPS SRC XLI Models - Configure Number of Battery Strings Each 96 V battery string consists of two 48 V battery modules. Count the number of battery strings being used and enter that number.		
	Configuration	**# of Battery Strings**
Factory Default for all Models	UPS internal battery string	1
SRC96XLBP2S	UPS internal battery string + 1 SRC96XLBP2S	2
	UPS internal battery string + 1 SRC96XLBP2S + 1 SRC004 (1 additional battery string)	3
	UPS internal battery string + 1 SRC96XLBP2S + 2 SRC004 (2 additional battery strings)	4
SRC96XLBP	The formula for configuring **SRC96XLBP** units is as follows: *UPS internal battery string + 3 x the number of SRC96XLBP units*	# of battery strings to be entered
	UPS internal battery string + 1 SRC96XLBP	4
	UPS internal battery string + 2 SRC96XLBP units	7
	UPS internal battery string + 3 SRC96XLBP units	10

Smart-UPS SRC UXI Models - Configure Number of Battery Strings Each 96 V battery string consists of two 48 V battery modules. Count the number of battery strings being used and enter that number.		
	Configuration	**# of Battery Strings**
Factory Default for all Models	No UPS internal battery string	0
SRC96XLBP2S	1 SRC96XLBP2S	1
	1 SRC96XLBP2S + 1 SRC004 (1 additional battery string)	2
	1 SRC96XLBP2S + 2 SRC004 (2 additional battery strings)	3
SRC96XLBP	The formula for configuring **SRC96XLBP** units is as follows: *3 x the number of SRC96XLBP units*	# of battery strings to be entered
	1 SRC96XLBP	3
	2 SRC96XLBP units	6
	3 SRC96XLBP units	9

Contact Information

APC Worldwide Customer Support

Customer support for this or any other APC product is available at no charge in any of the following ways:

- Refer to the APC Web site to access documents in the APC Knowledge Base and to submit customer support requests.

  - **www.apc.com** (Corporate Headquarters)
    Connect to localized APC Web sites for specific countries, each of which provides customer support information.

  - **www.apc.com/support/**
    Global support searching APC Knowledge Base and using e-support.

- Contact an APC Customer Support center by telephone or e-mail.
  Local, country-specific centers:
  go to **www.apc.com/support/contact** for information.

Contact the APC representative or other distributor from whom you purchased your APC product for information on how to obtain local customer support.

Maintenance, Transport, and Service

Replace battery modules

This UPS has easy-to-replace, hot-swappable battery modules. Replacement is a safe procedure, isolated from electrical hazards. You may leave the UPS and connected equipment on during the replacement procedure.

Once the batteries are disconnected the connected equipment is not protected from power outages.

Refer to the appropriate replacement battery user manual for battery module installation instructions. See your dealer or contact APC at **www.apc.com** for information on replacement battery modules.
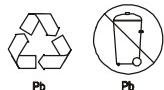
Be sure to deliver the spent battery(s) to a recycling facility or ship it to APC in the replacement battery packing material.

Service

If the unit requires service do not return it to the dealer. Follow these steps:

1. Review the problems discussed in *Troubleshooting* in the UPS manual to eliminate common problems.

2. If the problem persists, contact APC Customer Support through the APC Web site, **www.apc.com**.

   – Note the model number of the unit, the serial number located on the back of the unit, and the date purchased. If you call APC Customer Support, a technician will ask you to describe the problem and attempt to solve it over the phone. If this is not possible, the technician will issue a Returned Material Authorization Number (RMA#).

   – If the unit is under warranty, repairs are free.

   – Procedures for servicing or returning products may vary internationally. Refer to the APC Web site for country specific instructions.

3. Pack the unit in its original packaging. If this is not available:

   – Pack the unit carefully to avoid damage in transit. Never use Styrofoam beads for packaging.

   – Damage sustained in transit is not covered under warranty.

4. **Always DISCONNECT THE UPS BATTERY before shipping in compliance with U.S. Department of Transportation (DOT) and IATA regulations.** The battery(s) may remain in the unit.

5. Mark the RMA# on the outside of the package.

6. Return the unit by insured, prepaid carrier to the address given to you by Customer Support.

Two-Year Warranty

The limited warranty provided by American Power Conversion (APC®) in this statement of Limited Factory Warranty applies only to products you purchase for your commercial or industrial use in the ordinary course of your business.

Terms of warranty

APC warrants its products to be free from defects in materials and workmanship for a period of two years from the date of purchase. The obligation of APC under this warranty is limited to repairing or replacing, at its sole discretion, any such defective products. This warranty does not apply to equipment that has been damaged by accident, negligence or misapplication or has been altered or modified in any way. Repair or replacement of a defective product or part thereof does not extend the original warranty period. Any parts furnished under this warranty may be new or factory-remanufactured.

Non-transferable warranty

This warranty extends only to the original purchaser who must have properly registered the product. The product may be registered at the APC Web site, www.apc.com.

Exclusions

APC shall not be liable under the warranty if its testing and examination disclose that the alleged defect in the product does not exist or was caused by end user or any third person misuse, negligence, improper installation or testing. Further, APC shall not be liable under the warranty for unauthorized attempts to repair or modify wrong or inadequate electrical voltage or connection, inappropriate on-site operation conditions, corrosive atmosphere, repair, installation, start-up by non-APC designated personnel, a change in location or operating use, exposure to the elements, Acts of God, fire, theft, or installation contrary to APC recommendations or specifications or in any event if the APC serial number has been altered, defaced, or removed, or any other cause beyond the range of the intended use.

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NO SALESMAN, EMPLOYEE OR AGENT OF APC IS AUTHORIZED TO ADD TO OR VARY THE TERMS OF THIS WARRANTY. WARRANTY TERMS MAY BE MODIFIED, IF AT ALL, ONLY IN WRITING SIGNED BY AN APC OFFICER AND LEGAL DEPARTMENT.

Warranty claims

Customers with warranty claims issues may access the APC customer support network through the Support page of the APC Web site, www.apc.com. Select your country from the country selection pull-down menu. Open the Support tab at the top of the Web page to obtain contact information for customer support in your region.